



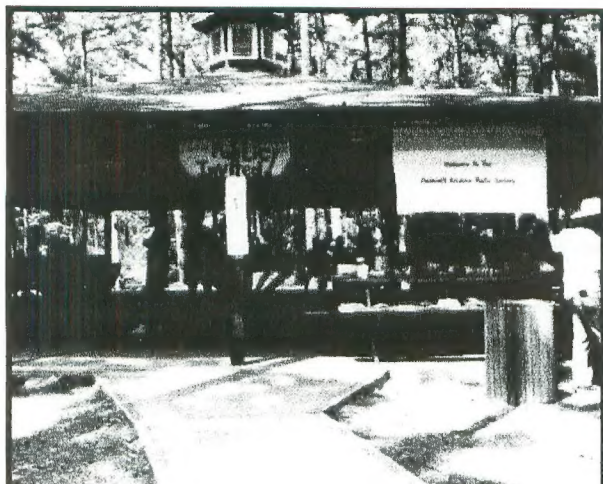
JUNE, 96

THE GARZETTE



VOLUME 3, ISSUE 7

Field Day 1996 Special Edition



The **GARS** Field Day site from the past two years at Rhodes Jordan Park in Lawrenceville. **GARS** will use this great site again this year and we invite one and all to join us there.

Photo by Joe Biddle, AD4PZ

Welcome To Field Day 1996

A Message From Field Day
Chairman Joe Biddle, AD4PZ

Every year some of us take to the field to prove to ourselves how well we are prepared for an event of devastating proportions. We pack our bags, load up some choice gear and we're off to the great wonderful world of RF slinging fun. Now having chosen a location to operate from, we start the first process that tests our readiness to setup in a timely manner. Once setup, we assemble a few antennas from materials at hand

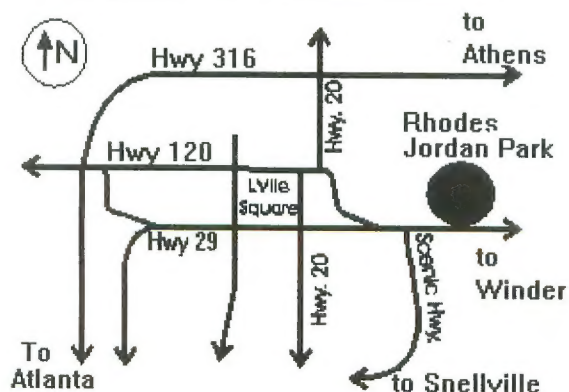
and sling them over some higher object, usually a resonant pine tree or two. As the time to begin approaches we perform some last minute inspections and adjustments on the power source.

Well that's what our pal Al did! The time arrived and Al was ready to start talking to America. Contacts were fast and furious at first but now he has worked into a groove. His jitters were

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Here's How To Find Us

100 East Crogan St., Lawrenceville



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THE GARZETTE

THE GARZETTE is the official monthly organ of the Gwinnett Amateur Radio Society serving its members and other persons interested in the advancement of the amateur radio art.

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If possible, submit items in ASCII text format or Microsoft Word format by email to ichapman@intergate.net or by posting a private message on the SA BBS (770) 236-7372, to Ike Chapman in the GARS conference. Use the Save Attached command and mark the security to receiver only. Art can be accepted in most any graphics format and can be submitted on an IBM formatted disk or via email as a uuencoded file attachment.

Contact the editor for other format compatibility or other means of transfer. Deadline for submissions is the first of each month.

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My thanks to all of them for their help in producing THE GARZETTE.

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Attn: Newsletter Editor

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Your Field Day

By Joe Biddle, AD4PZ

Well another Field Day is almost upon us and this year promises to be yet another great activity for Hams of all ages, interests and abilities. This years Field Day committee has been hard at work preparing lists, making arrangements, gathering those items needed to make your field day activity this year to be a good one.

But first I would like to give credit to last years Field Day Chairman - Vince Hrabosky, AE4CQ. He single handedly made arrangements for, coordinated for, and acquired things for the whole activity last year. I know I'd be seriously stressed if not for the talents and dedication of the Field Day Committee. My hat tips to Vince, for a super job very well done.

Another thing that Vince did to help this years Field Day is the 'Turn-over' package he left for this committee to review and to learn from. It included a number of lists from people who provided needed equipment and operating schedules to a thoughtful letter depicting his assessment and suggestions of the event.

The following items were those things that made Field Day '95 such a success:

Good Facilities - Two pavilions that were roomy, dry, well lit and well laid out for our needs

Good Food - the snacks and prepared meals

Good Operating - a good number of contacts were made and interference was quite low

There are some things that are already in place or available for this year that won't need much effort to deal with such as, most ground rods are already installed. The feed lines and dipoles are made up and ready to be strung up and checked out. However, our antenna person, Duane Han-

son, KD4KCR is planning to assemble a couple of antennas just the same for those interested in building your own antenna and checking it out. Of course the portable tower and its antennas just need to be assembled and set into place. And thanks certainly go to our friends at Scientific Atlanta for loaning us their trailer/generator. Thanks also to Charles Robison (AD4MI) for making adjustments to the engine governor and to the voltage regulator.

Field Day Objectives - The

object of Field Day of course is to make as many contacts as possible on all bands except 12, 17 and 30 meters. Our Field Day will have the same objectives, however in addition we will provide an optimum setting for social and educational desires as well.

Field Day Opportunities -

HF and Novice Station, UHF/VHF, Satellite Station, Packet Station, good food, social interaction. Don Button (AJ1T) was telling me that the satellite passes scheduled for this Field Day will be abundant compared to last year. See his report!

My Goals as Field Day Chairman -

Have this years Field Day meet or exceed the expectations or desires of the membership at large. I am also very heavily documenting the planning activities of any and all thoughts and ideas presented. This might aid future Field Day Planning Committees.

This is going to be a really great Field Day event and I can't wait to see a lot of you down at the park.

This Field Day is for you the HAM! Whether you are a GARS member or not come on down and join us in Food, Fun and Fellowship.

ARRL Sections

1
 CT Connecticut
 EMA Eastern Massachusetts
 ME Maine
 NH New Hampshire
 RI Rhode Island
 VT Vermont
 WMA Western Massachusetts

2
 ENY Eastern New York
 NLI New York City-Long Island
 NNJ Northern New Jersey
 SNJ Southern New Jersey
 WNY Western New York

3
 DE Delaware
 EPA Eastern Pennsylvania
 MDC Maryland-DC
 WPA Western Pennsylvania

4
 AL Alabama
 GA Georgia
 KY Kentucky
 NC North Carolina
 NFL Northern Florida
 SC South Carolina
 SFL Southern Florida
 TN Tennessee
 VA Virginia
 PR Puerto Rico
 VI Virgin Islands

5
 AR Arkansas
 LA Louisiana
 MS Mississippi
 NM New Mexico
 NTX North Texas
 OK Oklahoma
 STX South Texas
 WTX West Texas

CANADA
 AB Alberta
 BC British Columbia
 NWT Northwest Ter./Yukon

6
 EB East Bay
 LAX Los Angeles
 ORG Orange
 SB Santa Barbara
 SCV Santa Clara Valley
 SDG San Diego
 SF San Francisco
 SJV San Joaquin Valley
 SV Sacramento Valley
 PAC Pacific

7
 AZ Arizona
 EWA Eastern Washington
 ID Idaho
 MT Montana
 NV Nevada
 OR Oregon
 UT Utah
 WWA Western Washington
 WY Wyoming
 AK Alaska

8
 MI Michigan
 OH Ohio
 WV West Virginia

9
 IL Illinois
 IN Indiana
 WI Wisconsin

0
 CO Colorado
 IA Iowa
 KS Kansas
 MN Minnesota
 MO Missouri
 NE Nebraska
 ND North Dakota
 SD South Dakota

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 PQ Quebec
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1996-1997

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♦♦♦

GARS Field Day VHF/UHF Frequencies

147.075(+) MHz Talk In On **GARS** 2 Meter Repeater

146.440 MHz Field Day Site Work Crews

146.505 MHz VHF Contact Frequency

446.075 MHz Field Day Site Chat Frequency

Field Days Past

By Howie Gould, W4NVF

As the club prepares for the 1996 field day activities I wonder how many of our members can relate to exactly what it means? I for one can tell about my own experiences over the past 40 years with of course gaps in between where I did not attend. One field day in particular comes to mind that involved a small club of about 24 members or so back in Norwood, Mass where I spent a lot of my early years in ham radio. I was the President of the club but they called me Sparky, because I could always get something going with the group. I guess I haven't changed much since then.

We had been having our field days in Norwood on a local hill year after year. But for one particular year as I recall being 1972. I persuaded the club into going way out into Sturbridge, Mass which is about a 120 mile trip up the Mass turnpike and into the most rural mountain top area. I had found an old fire tower and state police relay tower on a barely accessible road. I got everybody excited about the deal and mentioned that we might even break our old records because of the excellent height of the terrain.

I had an old 1969 Dodge wagon then and we loaded the big 5 KW gas generator which belonged to the Norwood civil defense agency into it with a lot of camping supplies that I used to own along with dozens of tool items, food, cooler and just about everything but the kitchen sink. The other hams in the club had about the same. We headed out to Sturbridge forming a caravan on the Mass turnpike. Finally arriving at the foot of this small mountain we began to wind our way up the old dirt road full of curves and steep grades with side growth of shrubs and trees rubbing the sides of our vehicles. As we reached the summit, we maneu-

vered our vehicles into place. We all walked around to marvel at the beauty of the view around us. We were in the clouds and realized that we were there for the whole weekend no matter what. There was no easy run to the store.

The challenge of what lay ahead for us only got us that much more excited about our plans to operate our 3 stations. We found that the fire tower and relay tower made excellent supports for our HF antennas as we strung them up between the two and our mouths watered with the thought of all those stations we would work. We always set up Friday night and were ready to run at the crack of the pistol. We set up our tribander for the 20/15/10 meter bands and sat down to try the antennas out. And boy did they work!

Needless to say we all had various tents and sleeping arrangements along with Coleman stoves, gas lights etc.. The thought of the bacon and eggs frying first thing in the morning was almost too much to bear. After all, one of the other best things about field day is all the food and drink. It sort of makes your day if you know what I mean.

We got up Saturday morning real early because if you have ever been out with a bunch of crazy hams ready for a field day, you don't sleep much, because of the excitement generated throughout the group. It was another very warm morning and we all knew that it was going to be a scorcher for sure. We performed some more work on the antennas fine tuning them and making sure all the electrical paths were in order including the back up generator. But I knew these generators! I had worked on them in the field even making carburetor gaskets out of card board to keep them running during field day time. You have to be ready for the worst and again that is part of

field day.

Finally the time arrived and we were on the air and boy did we work them. Fast and furious they came one right after another with no time for a breath in between. As the afternoon wore on we noticed the clouds rolling in. Being up that high you were on top of the clouds. The heat of the day had built up to an unbearable level and off in the distance was the sound of thunder. Soon the wind had picked up and then the thunder and lightning started to get intense. The sky turned black and we were in the middle of a severe storm. There were cracks of white lightning all around us and we knew it was time to stop. We waited out the storm which seemed to be an eternity but in reality was about 10 or 15 minutes. The storm passed without any damage to us, and we to make up for lost time. By then it became a steam bath and all you could see below was the steam rising from the tops of the trees below and the sweat rolling off my fingers as I sent code on my semi automatic keyer.

As the day turned into night, we kept working the stations. The skip started to bring in all of those sections we were looking for and we knew we were looking good for the points needed to bring us out on top. We fired up our Coleman lanterns but the light attracted those darn moths and a zillion other bugs of the night. They would hit the lantern and drop on my fingers as I sent code. I was sending and slapping with both hands. We did not have the luxury of a screened tent to operate in but rather a few state park tables and benches plunked down on uneven ground. The lanterns burned at every station creating an atmosphere not like any other. The generator hummed and groaned

(Continued on page 5)

Field Days Past

(Continued from page 4)

with the changes in the load from receive to transmit but never the less putting out the regulated juice. It was a long night but many a contact went down and dawn brought a new day with the blazing June sun promising us another scorcher.

I headed for a siesta for a few hours break after having a hearty breakfast and found that the hard ground in my tent a little unforgiving to my bones in my sleeping bag but soon exhaustion took over and I was out of it until I awoke to the sound of the generator a little later. With tired eyes and sagging body I went back to the operating table to wind down the final hours of field day along with my comrades.

When it was over and we saw the log entries, we knew that this was going to be a club record breaker and who knows maybe a shot at first place in the section? We broke down the FD camp and headed home which now was 120 miles away. I got into my driveway, left all the gear except for the food in my wagon, said hello to the wife and kids and went to bed.

The general consensus of the club members at our next club meeting was that it was the first time everyone worked throughout the entire weekend in support of the club and that more concentration was given to the club striving to be number one in the section. But most importantly we worked as a team and not individuals. The experience we learned being shut in on a mountain top together made us work for a common cause, and we came through. This lesson would stick with the club in future field days and was passed down to new members as they joined the ranks of experienced field day operators.

A Look Back At Field Day 1995

By Vince Hrabosky, AE4CQ

Now that field day is almost here, I thought it would be nice to review last years Field Day held by **GARS**. I was Field Day chairman last year and the event, from what others tell me, was better than expected. Everyone seemed to have a great time and I don't recall anyone sleeping at anytime during the entire operating period. It seems to me the 1994 event had at least one who dozed off, but you should look at past issues of The GARZETTE for the details.

GARS seems to build and improve each year. We had the great park location at Rhodes Jordan Park from the 1994 field day and many who were at the 1994 event were there to contribute again. A careful look at the two **GARS** Field Days I've participated in have shown improvements in station operation and in acquiring bonus points in several new categories. And, the club provided food and drink last year which created a great social atmosphere as well as an enjoyable contesting experience.

Some memorable moments will always be with me. One in particular was Beverly Bryant, KE4VDI showing all the "men" the proper way to install a ground rod. Once again, Duane Hanson KD4KCR, held his famous antenna building class for all the newcomers and the additional coax helped Duane build a better antenna system. In 1994, we had a great deal of interference and the addition of the grounding system and antenna separation greatly reduced the noise and stress level between the CW and phone operators. And, 1995 had the addition of the **GARS** tower. All of this definitely made for an impressive site.

Last year was also my first exposure to satellite operation. This I will always remember. Don

Button, AJ1T brought his equipment and satellite operating experience and gave us bonus points we otherwise wouldn't have had.. Don's patience and experience made the difficult task seem quite easy.

I've attended one of Joe Bidle's, AD4PZ 1996 Field Day planning meetings and from the discussion held, this years event will be an event that no one should miss. Joe and his team will most likely produce the best Field Day the club has ever had. I hope to see you there.

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GARS Field Day

10 Years Ago

June 28,29, 1986

GARS Field Day was held at Fort Yargo State Park using the call NG4I. Two members participated, Don, N4KHV and Mel, NG4I. The Operating Class was 2A

15 Years Ago

June 27,28, 1981

GARS Field Day was held with the Scientific Atlanta Radio Club on the Scientific Atlanta Antenna test range near Cruise Road. One of the operators joining in was the then Vice President of **GARS** Lowrey Rouse, KM4Z. The W1AW message for that year was one created by President Ronald Reagan. The Operating Class was 3A.



Don't Let Field Days Bug You!

By Jud Whatley, W4NZJ

Over the years, I have participated in many, many Field Days in Georgia and North Carolina. All have been unique and with their own peculiar amusing moments, antennas being hoisted into position without the required feed lines connected, a tower and a 4 element beam falling onto and ultimately into a portable camper (no one was hurt), returning from a coffee break only to find the 4 designated operators at the four stations asleep in front of their microphones, several making fun of Johnny, W4WKP, as he lay fast asleep amid all the confusion and surrounding chaos, and other examples too numerous to mention. One, however, will ALWAYS stand out in my mind. Although it could have been dangerous, from afar it must have been amusing thus explaining why we lived. I'm an example that the Lord protects fools, kids, and hams at Field Day events!

It was about 9:30 PM on a Saturday night in 1974 during the height of Field Day activity for the Rowan Amateur Radio Society (RARS) in Salisbury, NC. Prof. Dan Kirk, WB4RGS and I were "volunteered" to run downtown to pick up a few supplies for the Field Day team. Since we were operating from a site near the Yadkin River and on top of a mountain just north of Salisbury, we considered it to be a routine 20-minute round trip. How wrong we were!

Before getting to the actual events, several things need to be explained. First, let me tell you about Dan. Dan was, and still is, a very reserved and quiet person. He was and is a very methodical and logical individual. He is one who never, never raises his voice or shows any outward emotion. At that time, he was about 50 years old and taught Biology at Catawba, a local college. Secondly, my car was a souped-up 1969 Camaro



convertible (4-speed, 327 cubic inch, 3/4 cam and a high performance racing clutch). It was a very powerful running machine for it's day.

After being selected to drive to get some supplies, Dan and I jumped into my car for our "short" trip. I had just stopped talking to my wife, Mary, and had not closed my car door completely when I placed my left foot on the clutch to depress it before starting the engine. Dan was just seating himself next to me in the passenger's seat as I started cranking the engine. We said a few words and the following few moments, which seemed like an eternity, are but a blur. Here they are ...

I distinctly remember my Chevy engine roaring to life and me letting the engine "lope" for a few seconds before releasing the clutch. Anyone having such an engine and cam knows that action and sound because it sounds and acts as if the engine almost stalls between each "lope". I was just about to SLOWLY release my clutch when all of a SUDDEN Dan starts thrashing about wildly while holding his neck and screaming, "Something's got me...it's on me!" I was STUNNED and in sheer TERROR when I looked over at him. I reacted swiftly and like a loyal friend. I pushed away from this now raving maniac who was wreathing and flailing about in my

car and screaming at the top of his voice. Of course, everyone in camp heard the noise. As I pushed away (or was I jumping away?), my foot slipped off the clutch causing the car to jump into gear and lurch forward with a sudden jolt. I was immediately thrown from my car since the door was partially open and my seat belt not fastened. This was bad enough but the worse was yet to come! My two long 12 inch feet were still wedged between the front car seat and the car's firewall and I could not pull them out! I was slowly being dragged down the hill each time the car "loped" forward. I was thinking that my life would end there in the North Carolina mountains without knowing how we did on Field Day!

Dan was of NO use or help whatsoever! He continued to thrash about with no control and totally oblivious to my situation. Mary, on the other hand, was closest to me and tried in vain to pull me from the car thus only complicating matters! Each time the car came to a momentary stop she would pull on me while I was trying to pull myself into the car and up to the steering wheel to regain control of the car. I panicked...I knew I was about to die and I did not care about Dan at the moment! We were both slowly proceeding down the hill at approximately 5 LMPH (loping miles per hour)! Just ahead was a ridge leading down to the cold waters of the Yadkin! We were about to become "Silent Keys" along with whatever had Dan by the throat.

I yelled to Mary to stop pulling me and with my last bit of adrenaline-added strength, I grabbed the door and held to it while I slowly pulled myself to the steering wheel. At last...I had the steering wheel and was partially

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Don't Let Field Days Bug You!

(Continued from page 6)

into the moving car when I automatically and without thinking turned the ignition off. The Camaro came to a sudden and silent stop. Had we continued for approximately 60 more feet, Dan and I would have gone over the edge and into the swirling Yadkin River below.

By now, others had reached the car. While I had some bad scratches and cuts from being dragged through bushes, grass, pine needles and the like for approximately 125 feet, I was very worried about Dan and told them to check on his condition. I just could NOT imagine why he was acting as he was. Was he being bitten by a snake, a Black Widow spider, having a stroke, or was he just hallucinating? They eventually got him calmed down and stopped him from thrashing about long enough to have him remove his hands from his neck. They found a very large (and now very dead) June bug! It seems it had come into the car through the open window and landed on Dan's neck causing this well-trained Biology professor and reserved individual to panic almost causing us to get killed and miss the remaining 1974 Field Day! When I discovered what had happened, I threatened to put my hands around his skinny neck and finish the job.

But, it all ended happily. Well, we did not win that Field Day nor did we ever win one, we ALWAYS had FUN and that's the purpose of Field Days...to make it fun learning how amateurs should handle emergencies whether they are weather related or simply "bug" related!!

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My First Field Day

By J. Pickett Cummins, AD4S

In the summer of 1962, which was the first summer that I had my amateur license, I had helped form a small radio club; The Hub City Ham Club of Hattiesburg, MS. There were only 7 or 8 members and most of us were pretty new at this "ham" stuff. Three of the members were in high school but very active.

Fortunately, one of the older hams in town, who was not a member, was a county commissioner and he agreed to get a generator for us and find a suitable location to hold Field Day. True to his word, he produced a big generator built on a trailer. The engine was out of a W.W.II jeep and we probably could have powered up the county hospital with it.

He chose a great location for us way up on a hill where the county had a small antenna farm. It was not very close to town so we knew that we needed to bring everything we needed with us. And we thought we had everything covered. We had a nice big cabin tent for anyone that wanted to sleep on one side. The other side we reserved in case the weather turned bad (which it didn't). We brought plenty to eat and drink and a fairly good supply of gasoline for the generator.

We had a great time all afternoon and all night. Almost no one got any sleep, but we were having fun and there was just a hand full of us there anyway. We made a lot of contacts and learned a lot about working contests. As you always do at Field Day....we had a lot of laughs.

Sunday morning dawned and we were still going strong. Several new people came in to relieve us when it was daylight and I

Field Day 1996 List of Events

Saturday

9:00 am	Site Setup
2:00 pm	Contest Starts
6-7:30 pm	Evening Dinner

Sunday

7-8:30 am	Breakfast
1:00 pm	Lunch
2:00 pm	Contest Ends Site Teardown And Cleanup

GARS Field Day Talk In

Need directions to the **GARS** Field Day Site? A talk in will be run on the **GARS** 2 meter repeater, 147.075(+) MHz beginning at 8:30 AM on June 22. Once on the site, a simplex frequency of 146.440 MHz will be used for work crews and general communications. We will also be using 146.505 as the frequency for VHF contacts, so if you can't join us at the site, join us on the air.

decided to hit the sack. About 10:00 am someone woke me up with a real problem. With all of our planning, gasoline, drinks, food, backup resources of all kinds, no one thought to bring a supply of motor oil.

We shut everything down and went home.

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THE FOOD COURT

Though the club is providing food and drink, you are encouraged to bring any favorite snacks or treats, home made or otherwise. Alcoholic beverages are prohibited.

SATURDAY

For those folks helping in setting up the Field Day site there will be sandwich makings, chips and refreshments.

The Evening Dinner will be from 6-7:30 pm for anyone wishing to stop by. There will be grilled burgers and hotdogs (BYOS, bring your own steak), fruit and veggies, chips and drinks. Bring a spouse, friend and your children. **Non-members ARE VERY WELCOME TOO!!**

SUNDAY

Breakfast will be from 7-8:30 am. There will be pancakes, doughnuts, sausage, fruit and hot fresh coffee. Stop by and have a good breakfast with us. **While you're there why not grab a rig and help us make some contacts in the final hours of the contest.**

A **'Pre-Teardown Lunch'** of sandwiched and drinks will be served around 1:00 for the operators and all the folks getting ready to pack up and fold the Field Day Event.

Of course during the entire Field Day event there will be snacks, coffee and refreshments of all kinds. See you there!

A Few Notes About The 10 Meter Satellite Downlink Antenna

By Don Button, AJ1t

The 10-meter satellite downlink antenna I will have in operation at Field Day this year looks a bit different than the others. This antenna is called a turnstile antenna. Before I describe how it works, a few words about what we need to have a good satellite antenna.

Most all of us, through our ham radio "upbringing", are all taught that our antennas should be as high as possible above the ground to have as low an angle of radiation as possible for the best DX. With satellite work, though, we need to reverse this thinking. Here, we need to receive a satellite which is flying at some angle overhead. Some passes of the satellite bring it nearly overhead. Now we need an antenna with a radiation pattern that spreads energy at all these angles nearly overhead, and extending down in all directions to the horizon, where the satellite disappears from view until the next orbit. As an alternative, we can use high gain Yagi antennas with azimuth and elevation rotors, to steer the Yagi to the exact position of the satellite, anywhere in the sky. This is hard to do at 10 meters, where the antenna would get very large. In this case, we use the omnidirectional approach, with good high angles of radiation.

Another problem with satellite work is that as the satellite orbits the earth, it tends to "tumble" about itself, causing its antennas to rotate relative to the earth. This changes the polarization of the downlink signal. A simple vertical or dipole antenna here on the earth will suffer from signal fading as the two antennas become cross polarized relative to each other. Also, as we pass signals through the ionosphere in either direction, the polarization tends to be rotated from an effect

called Faraday rotation. With the signals changing polarization in such random ways, the satellite signal tends to sound "fluttery" many times as the signal strength rises and falls quickly. To help alleviate this problem, we can build an antenna which receives and transmits signals with circular polarization, so that it will respond to signals of any polarization.

The turnstile antenna is nothing more than two dipoles mounted at right angles to each other. To generate circular polarization, we need a simple cable harness to divide the RF power from the transmitter equally between the dipoles, and then introduce a 90 degree phase shift into the path to one of the dipoles. This is done in a rolled-up section of coax mounted at the center of the dipoles, and we use a quarter wavelength transformer section of 75 ohm RG-59 coax to impedance match the two way power split, and then another 90 degree length of RG-58 coax to insert the proper phase shift to generate circular polarization.

Many of us have seen crossed element Yagi antennas designed for satellite operation. These antennas also generate circular polarization. In fact, a turnstile antenna is nothing more than the driven pair of elements from one of these Yagi antennas, turned sideways, so it is radiating directly upward toward the sky. This analogy is another example of what I often tell people about antennas: There are only a moderate number of really basic antenna types, but there are many, many different ways to use these basic types in slightly different ways.

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Satellite Pass Schedule

By Don Button, AJ1T

Now that we have reviewed the basics of a few satellites, let's look at when we will find them during Field Day. I used my satellite tracking computer programs (InstantTrack and WinSat for Windows, from AMSAT) to predict the exact times these satellites will fly overhead during the weekend of June 22nd and 23rd.

Both of these computer programs are really quite interesting, and they provide a lot of information about just about any satellite you are interested in, including

the sun and the moon, too! They will be running during the Field Day weekend also, if you would like to try them out yourself.

I ran separate pass predictions for RS-10, RS-12, RS-15, and FO-20 for the entire Field Day period, and wrote a table listing these times for each satellite. Also included were the length of each pass, and the maximum elevation angle that the satellite would reach in the sky overhead. The maximum elevation angle is a good indication of how strong the satellite signals will be - the

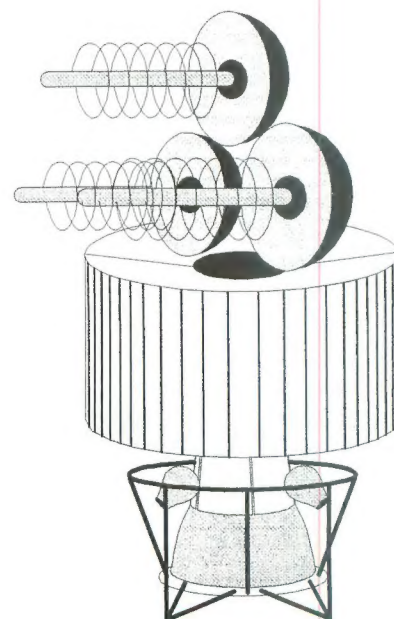
higher the elevation angle, the more overhead and the closer the satellite is to our antennas, and thus, the stronger the signals. Then, I "meshed" together the separate listings for each satellite to make a master list for the whole weekend. Using this list, we can tell at a glance when the next pass will occur, and which satellite we will hear. This list is shown at the end of this article. The bold faced times are for particularly good passes - those which pass nearly overhead which should provide good signal strengths.

Bold Italics = Particularly good passes - long pass times, strong signals.

<u>RS-10</u>				<u>RS-12</u>			<u>RS-15</u>			<u>FO-20</u>		
Pass date:	Pass time:	Pass length:	Max. Elev.	Pass time:	Pass length:	Max. Elev.	Pass time:	Pass length:	Max. Elev.	Pass time:	Pass length:	Max. Elev.
22-Jun-96	03:31 PM	11 min.	8 deg.	06:35 PM	14 min.	15 deg.	03:02 PM	22 min.	12 deg.	6:14 PM	13 min.	9 deg.
	05:13 PM	19 min.	75 deg.	08:18 PM	17 min.	60 deg.	05:16 PM	27 min.	34 deg.	7:59 PM	18 min.	60 deg.
	07:01 PM	13 min.	11 deg.	10:09 PM	9 min.	5 deg.	07:30 PM	27 min.	60 deg.	9:52 PM	16 min.	16 deg.
23-Jun-96							09:46 PM	17 min.	9 deg.			
	02:33 AM	8 min.	5 deg.	05:36 AM	12 min.	8 deg.	07:35 AM	26 min.	30 deg.	7:49 AM	14 min.	21 deg.
	04:15 AM	16 min.	58 deg.	07:20 AM	17 min.	60 deg.	09:45 AM	30 min.	70 deg.	9:40 AM	16 min.	42 deg.
	06:02 AM	14 min.	17 deg.	09:07 AM	12 min.	8 deg.	12:02 AM	25 min.	22 deg.	11:35 AM	4 min.	2 deg.
	03:59 PM	15 min.	20 deg.				02:26 PM	20 min.	12 deg.			
							04:41 PM	24 min.	27 deg.			

Sorted List of Pass Times:

Satellite	Pass Time	Satellite	Pass Time
Saturday		Sunday	
RS-15	03:02 PM	RS-10	02:33 AM
RS-10	03:31 PM	RS-10	04:15 AM
RS-10	05:13 PM	RS-12	05:36 AM
RS-15	05:16 PM	RS-10	06:02 AM
FO-20	06:14 PM	RS-12	07:20 AM
RS-12	06:35 PM	RS-15	07:35 AM
RS-10	07:01 PM	FO-20	07:49 AM
RS-15	07:30 PM	RS-12	09:07 AM
FO-20	07:59 PM	FO-20	09:40 AM
RS-12	08:18 PM	RS-15	09:45 AM
RS-15	09:46 PM	FO-20	11:35 AM
FO-20	09:52 PM	RS-15	12:02 AM
RS-12	10:09 PM	RS-15	02:26 PM
		RS-10	03:59 PM
		RS-15	04:41 PM



GARS Field Day Logging

By J. Pickett Cummins, AD4S

GARS has chosen to do it's Field Day logging manually. We have looked at the possibility of using computers, but computers and motor generators don't go well together. The problems of finding enough laptops and coping with dead batteries have kept us from considering that option. The other problem with using a computer program (and there are many good ones) is the training problem. So we continue to use manual logs.

Since **GARS** Field Day is really a social event, using manual logs is really the way to go. It is easy to train someone in the middle of the night to pick up and keep on going.

Entries for Field Day do not require a date or time. What is required is a valid ARRL Section (either 2 or 3 alpha characters), a call sign and a signal report. Stations can be worked once on each phone band and once on each CW band. All contacts on HF non-phone bands are counted as CW so there are no additional benefits from trying to work a station on RTTY, PACTOR, AMTOR, etc. if you have already worked him on CW.

GARS prepares a separate log book for each HF Band/Mode that the Club may want to use during Field Day. Each log has a sufficient number of pages to record far more contacts than the Club normally makes during this event.

This year we are going to add 2 new items to the log book. One is a space to show who the operators is during a particular sequence of contacts. (This does not include any separate logging assistance). We may decide on special recognition to the most number of contacts by an operator (perhaps by mode). The other change will be to include in a prominent location, the 77 valid ARRL Sections. When a station replies 59 in Northern New Jersey,



Pickett Cummins, AD4S prepares the log books for last year's **GARS** Field Day.

the entree in the log book should be NNJ, not NJ.

Handling of duplicates manually is not a real problem if you use the manual dupe sheet that is supplied for each band/mode. Once you get used to the format, it is a pretty quick scan to see if you have worked that station on that band/mode. It is better to go ahead and make the contact and put it in the log. **GARS** has a computerized reporting system that detects duplicate band/mode contacts.

There are probably as many approaches to snagging contacts in a contest as there are contests. I like to work without a separate person logging. I like to scan the bands as opposed to trying to carve out a hold in a band and call QRZ Field Day. Others like to call QRZ and are quite successful doing that. As a matter of fact, Dean, AD4OD, has a voice synthesizer that calls QRZ FD for him. (How much fun can a guy have?). Any time I hear a good signal, I jot down the call and zone on scratch paper (the back of the previous log sheet will do). My theory is if I hear them good, they can hear me and I will get them sooner or later. That way in the rush to make the contact,

you don't have to spend any time gathering the information, you can just concentrate on the call sign.

One thing about contests, you can't be bashful and do well in making contacts. You just have to get in there and duke it out with everyone else. Don't hesitate to go back to a station if he is standing by for a call that has anything in it that sounds like AE4HN. You can always play dumb and say you were having trouble copying through all the QRM. For instance; if the station stood by for the "Tango Nancy", you should go right back to him as if he had said "Hotel Nancy". What the heck, they can't fine you or put you in jail!

Another trick that I have found effective is to tune off the frequency slightly in the direction that makes you sound a little like Donald Duck on SSB. You would be surprised how many times people will distinguish your call in the midst of all the bedlam.

Be polite once you make the contact, and thank the station for the points, but don't hesitate to push and shove to get the contact.

The main thing is to get the adrenaline going and have a grand time!

♦♦♦

Don't forget to stop by the **GARS** Field Day site and register for the door prizes that will be given away. You do not have to be present to win but you have to stop by and register. Prizes will include HRO gift certificates, grab bags, and much more. So don't miss out, come by and register and while you're there take time to make a few contacts.

Welcome Message

(Continued from page 1)

gone and he was now logging smoothly and the equipment was working flawlessly. As the hours went by, and Al cried CQ Field Day and 1Alpha GA a few hundred more times, he started thinking how nice a break would be or to go get a snack or to visit the sand box.

Just then some rain came. Nothing bad enough that would keep the mighty Field Day Operator from his appointed contacts. But then a drop of rain smacks the top side of his VFO which got his undivided attention. As another one found a vent hole in the top of the chassis, Al reached for the power switch, all the while wondering which circuit would fry before he could get it switched off. Having placed a patch over the leaking hole, Al wondered over to get some hot water for his instant coffee only to discover that he forgot to turn the burner on.

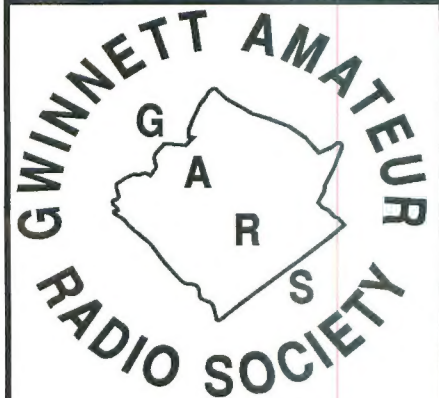
The rains slowed some but that brought out the mosquitoes. So before Al could sit down for round two he waded through his crowded little work area tripping over the bug spray he was after landing within arms reach of his cellular phone. As his fingers walked their way to that 800mhz HT, Al let out a sigh a relief and concede to defeat as he called home to say he was packing up.

As Al was driving home, his phone rings. It's Al's wife. She suggests to Al that he stop by the **GARS** Field Day Outing in Lawrenceville. She told him that she was reading a *Special Edition* news letter put out by the **GWINNETT AMATEUR RADIO SOCIETY**. She said it sounded like there would be a lot of action there and that he could still participate in the Field Day exercise.

So Al stopped by and had the

time of his life! He ended up working contacts all night long while continually having snacks and hot fresh brewed coffee. He shared laughs and stories with the many new friends under the well lit and dry pavilions of Rhodes Jordan City Park. He also ran into some old friends he hadn't seen in years as they shared in some good food. Al went home later Sunday with many new friends and some rekindled ones too. He also found some new interests in ham radio from his exposure to packet radio and satellite communications, bringing to an end of what might have otherwise been just a typical lonely outing for Al.

Well, your experiences or ideas of a Field Day outing may not have been quite like Al's but there is one thing for certain - No matter what your experience, interest or abilities are, there is a place for you at this years Gwinnett Amateur Radio Society's Field Day Event. Whether you are a member of **GARS** or not, or whether you are just considering becoming a ham, it doesn't matter. Stop by and see what's up! If you are a true contesteer and live for 'the points', then come on out and help us make a great score. Perhaps you've only heard of packet or digital radio and would like to find out what it is all about and see it in action. Maybe your ambitions are to contact someone via one of those orbiting repeaters we call satellites. Your desires may not even include operating but would rather give us a helping hand in setting up and/or tearing down. Again, what ever your interests might be there is something for you! Come by and see the flurry of activity to see and make some friends.



GARS 1996 Field Day Committee

Chairman

Joe Biddle, AD4PZ

Members

Dean Matthews, AD4OD

Don Button, AJ1T

Bill Ahls, KE4EIH

Duane Hanson, KD4KCR

Junior O'Kelly, KE4VWN

Pickett Cummins, AD4S

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Art Smith, KE4MQX

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THE GARZETTE

JUNE, 96

Gwinnett Amateur Radio Society
P.O. Box 88
Lilburn, GA 30226



Mailing
Address
Goes
Here

The GARS Field Day will be on June 22 and 23 at Rhodes Jordan Park in Lawrenceville. One and all are invited to come join in the fun.

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THE GARZETTE

JUNE, 96

Field Day Bonus Points

Listed below are the ARRL bonus points that we will be going for.

Bonus points will be given for:

1) **100% emergency power:** 100 points per transmitter for 100% emergency power. All equipment and facilities at the Field Day site must be operated from a source independent of the commercial mains. Example: A club operating 3A, using 100% emergency power may claim 300 bonus points.

2) **Public Relations:**

A) 100 points for media publicity. Publicity must be obtained or

a bona fide attempt to obtain publicity must be made.

B) 100 points for physically locating in a public place.

C) An additional 100 points can be earned by such display stations in public places actively conducting an information booth for the visiting public and dispensing information.

3) **Message Origination:** 100 points for origination of a message by the club president or other Field Day leader, addressed to the SM or SEC.

4) **Message Relay:** 10 points for each message received and relayed during the Field Day period, up to a maximum of 100 points.

5) **Satellite QSO:** 100 points can be earned by completing at least one QSO via satellite.

6) **Natural Power:** Field Day groups

making a minimum of five QSOs with (in our case), a solar charged deep cycle battery

7) **W1AW Message:** A bonus of 100 points will be earned by copying a special ARRL Field Day bulletin sent over W1AW on its regularly announced frequencies just before and during Field Day. This message can be received directly from W1AW or by any relay method.

8) **Packet Radio:** 100 points can be earned by completing at least one QSO on packet radio during the Field Day period.

9) **VHF/UHF:** 100 points can be earned by completing at least ten QSOs.

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